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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,001	04/10/2001	Staffan Andersson	2380-291	9574

7590 04/14/2004

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EXAMINER

CHO, UN C

ART UNIT	PAPER NUMBER
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2682

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DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,001

Applicant(s)

ANDERSSON ET AL.

Examiner

Un C Cho

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1- 7, 14 - 19, 26-32, 39 - 44 is/are rejected.
- 7) ☒ Claim(s) 8 - 13, 20 - 25, 33 - 38 and 45 - 52 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5, 6 and 7</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 6/22/2001, 12/10/2001 and 6/4/2003 was filed after the mailing date of the Application 09/829,001 on 4/10/2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities:
Page 6, line 27 recites "RBS₂₋₁" it should be RBS328₂₋₁ instead.
Page 6, line 30 recites "RBS₂₋₂" it should be RBS328₂₋₂ instead.
Page 15, line 30 recites "segment 400₂" it should be segment 400₃ instead.
Appropriate correction is required.

Drawings

3. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1, 2, 4 – 7, 14, 16, 18, 19, 26, 27, 29, 30 – 32, 39, 41, 43 and 44 are rejected under 35 U.S.C. 102(a) as being anticipated by Rune (WO 00/11899).

Regarding claim 1, Rune teaches that the radio access network includes a first radio network control node (Fig. 2, SRNC) and a second radio network control node (Fig. 2, DRNC1) (Rune, Page 6, lines 3 – 8). Rune also teaches the use of an end-to-end signaling protocol (AAL2) to establish at least node-transcending ones of plural distinct connection segments involving a user equipment, in which enabling the plural distinct connection segments extending in series between a device (Diversity Handover Unit (DHO)) in the first radio network control node and a base station controlled by the second radio network control node (Rune, Page 6, lines 13 – 15 and Page 7, lines 13 – 16).

Regarding claim 2, Rune teaches that AAL2 signaling is used as the end-to-end signaling protocol (Rune, Page 7, lines 13 – 16).

Regarding claim 4, Rune teaches establishing at least one of the plural distinct connection segments between the base station controlled by the second radio network control node and a device (Diversity Handover Unit (DHO)) at the second radio network control node (Fig. 2).

Regarding claim 5, Rune teaches the method of performing a SRNC relocation procedure to make the second radio network control node serve as the SRNC for the radio connection involving the user equipment. Rune also teaches using a retained one of the at least one of the plural distinct connection segments

between the base station controlled by the second radio network control node and the device at the second radio network control node to comprise the radio connection with the user equipment unit (Fig. 2) (Rune, Page 4, lines 4 – 16).

Regarding claim 6, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 7, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 14, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 16, Rune teaches that the device (Diversity Handover Unit (DHO)) at the second radio network control node is a connection point situated between a switch (inherently located within the second radio network control node since it is using AAL2 signaling protocol) of the second radio network control node and a link to the first radio network control node (Fig. 3).

Regarding claim 18, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 19, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 26, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 27, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 29, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 30, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 31, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 32, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 39, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 41, the claim is interpreted and rejected for the same reason as set forth in claim 16.

Regarding claim 43, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 44, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune (WO 00/11899) in view of Eneroth et al. (IEEE Communications Magazine).

Regarding claim 3, Rune fails to teach an establish confirm message of the end-to-end protocol is not received at the first radio network control node until a user plane has been set up for all of the plural connection segments. However, Eneroth teaches that an establish confirm message of the AAL2 protocol is not received at the S-RNC until a user plane has been set up for all of the plural connection segments (Eneroth, Page 116 second column, lines 32 through Page 117 lines 1 – 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Eneroth to Rune to provide a feature of AAL2 signaling protocol in establishing a confirm message.

Regarding claim 28, the claim is interpreted and rejected for the same reason as set forth in claim 3.

7. Claims 15, 17, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune in view of the admitted prior art Figure 1 admitted by applicant.

Regarding claim 15, Rune fails to teach establishing a connection segment between the device at the second radio network control node and the device at the first radio network control node. However, the admitted prior art teaches establishment of a connection segment between the device at the second radio network control node and the device at the first radio network control node (Fig. 1). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to provide the teaching of the admitted prior art to Rune to provide connections among devices located in different radio network controllers.

Regarding claim 17, the admitted prior art teaches that the device at the second radio network control node is an extension terminal (Fig. 1).

Regarding claim 40, the claim is interpreted and rejected for the same reason as set forth in claim 15.

Regarding claim 42, the claim is interpreted and rejected for the same reason as set forth in claim 17.

Allowable Subject Matter

8. Claims 8 – 13, 20 – 25, 33 – 38 and 45 – 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, IEEE article written by Eneroth and reference by Rune, either alone or combination teach establishing plural distinct connection segments between a device (Diversity Handover Unit (DHO)) at the second radio network control node and the base station controlled by the second radio network control node (Rune, Fig. 2). However, Goran and Rune either alone or combination fails to teach establishing a

Art Unit: 2682

connection segment between the first device at the second radio network control node and a second device at the second radio network control node.

Regarding claim 20, IEEE article written by Eneroth and reference by Rune, either alone or combination teach the node-transcending one of the plural connection segments. However, Goran and Rune either alone or combination fails to teach that the node-transcending has a connection point at a given node, the given node being one of the first radio network control node, the second radio network control node, and the base station, wherein the given node has a call control process in a call layer which is separated from a connection control process in a connection layer, and wherein the method further comprises the call layer control process obtaining a binding reference to represent the connection point.

Regarding claim 33, the claim is interpreted and objected for the same reason as set forth in claim 8.

Regarding claim 45, IEEE article written by Eneroth and reference by Rune, either alone or combination fails to teach an application programmable interface between the call layer and the connection layer.

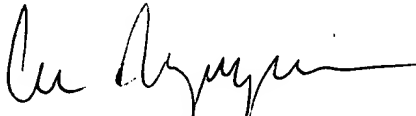
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703)305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703)308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho 4/12/04
Examiner
Art Unit 2682 *UC*


LEE NGUYEN
PRIMARY EXAMINER